

ABSTRACT

A silver-based alloy thin film is provided for the highly reflective or semi-reflective layer of optical discs. Alloy additions to silver include gold, rhodium, ruthenium, osmium, platinum, palladium, copper, silicon, cadmium, tin, lithium, nickel, cobalt, indium, chromium, antimony, gallium, boron, molybdenum, zirconium, beryllium, titanium, magnesium, and zinc. These alloys have moderate to high reflective and reasonable corrosion resistance in the ambient environment.